Knowledge Base Article

Integrating the PowerNet Reader-Controller with the MOBOTIX T24 Video Door Station

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1: INTRODUCTION

The MOBOTIX T24 Video Door Station can easily be integrated with the ISONAS PowerNet. This can give the user a simple solution that provides the powerful access control features of the ISONAS Access Control System, with the outstanding video and audio features that are available with the T24 Door Station.

All of this can be done with standard data network cabling and that same cabling can provide the door component's electrical power with Power-over-Ethernet (PoE).

1.1: SOLUTION OVERVIEW:

The physical layout of the solution is shown in Figure 1 below.

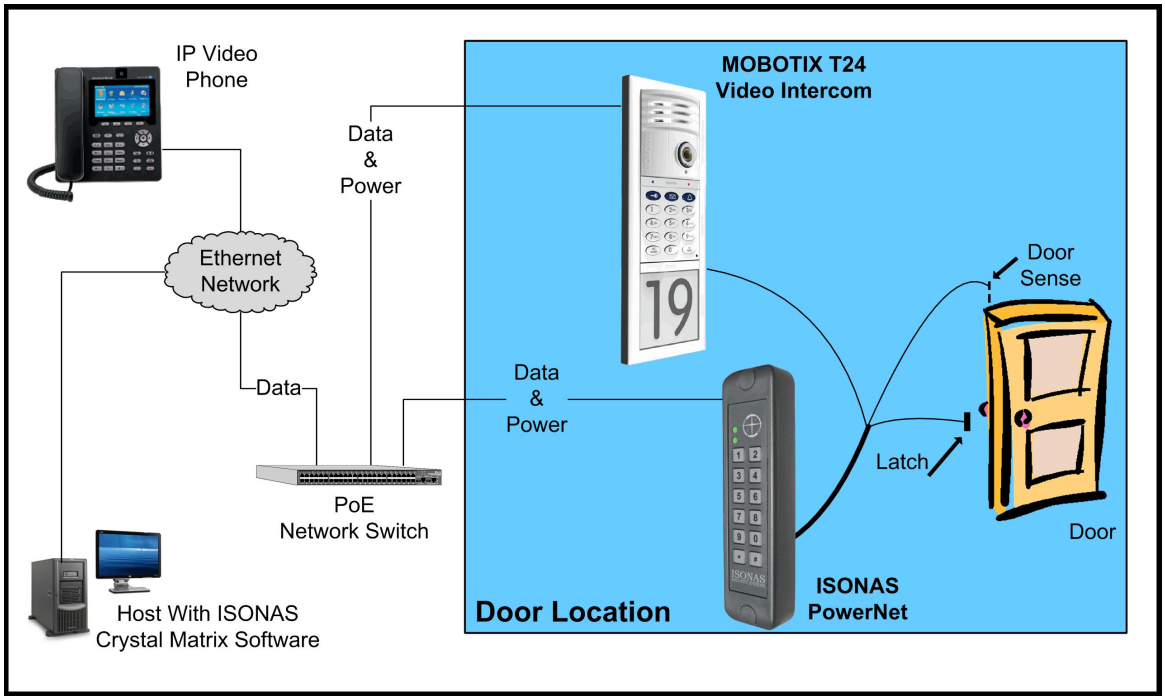


Figure 1

1.2: INSTALLATION STEPS:

- Connect the PowerNet's AUX input to the T24's "Do" output.
- Configure the ISONAS Crystal Matrix Software to enable the AUX input.
- Configure the MOBOTIX T24 to support the desired latch interval.

2: INSTALLATION DETAILS

2.1: PHYSICAL CONNECTIONS

Description	Location	Terminal Block / Wire
AUX Signal	PowerNet Pigtail	Orange Wire
AUX Signal	MOBOTIX Terminal Board	**“Do”** Terminal Connector
AUX Signal Ground	PowerNet Pigtail	Black Wire
AUX Signal Ground	MOBOTIX Terminal Board	**“b”** Terminal Connector
MX Bus +	MOBOTIX Terminal Board	“MxBus +” Terminal Connector
MX Bus +	T24 MX Bus Push Terminal	**“+”** Terminal Connector
MX Bus -	MOBOTIX Terminal Board	“MxBus –“ Terminal Connector
MX Bus -	T24 MX Bus Push Terminal	**“-“** Terminal Connector

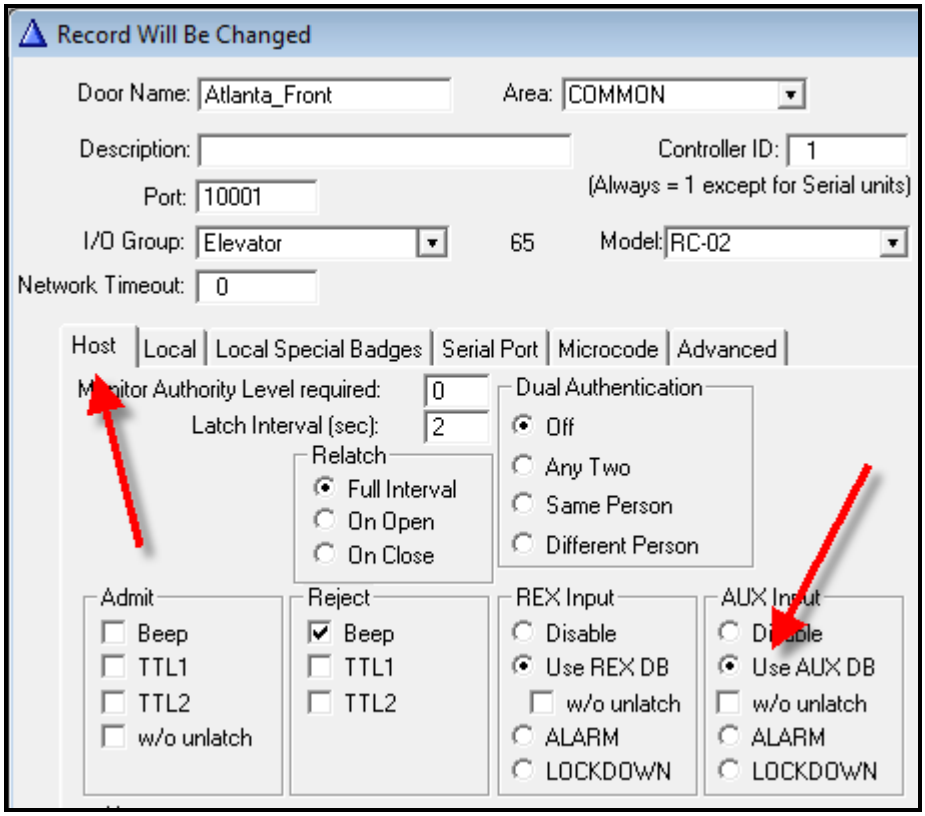
2.2: SOFTWARE CONFIGURATION

2.2.1: CRYSTAL SOFTWARE DOOR CONFIGURATION

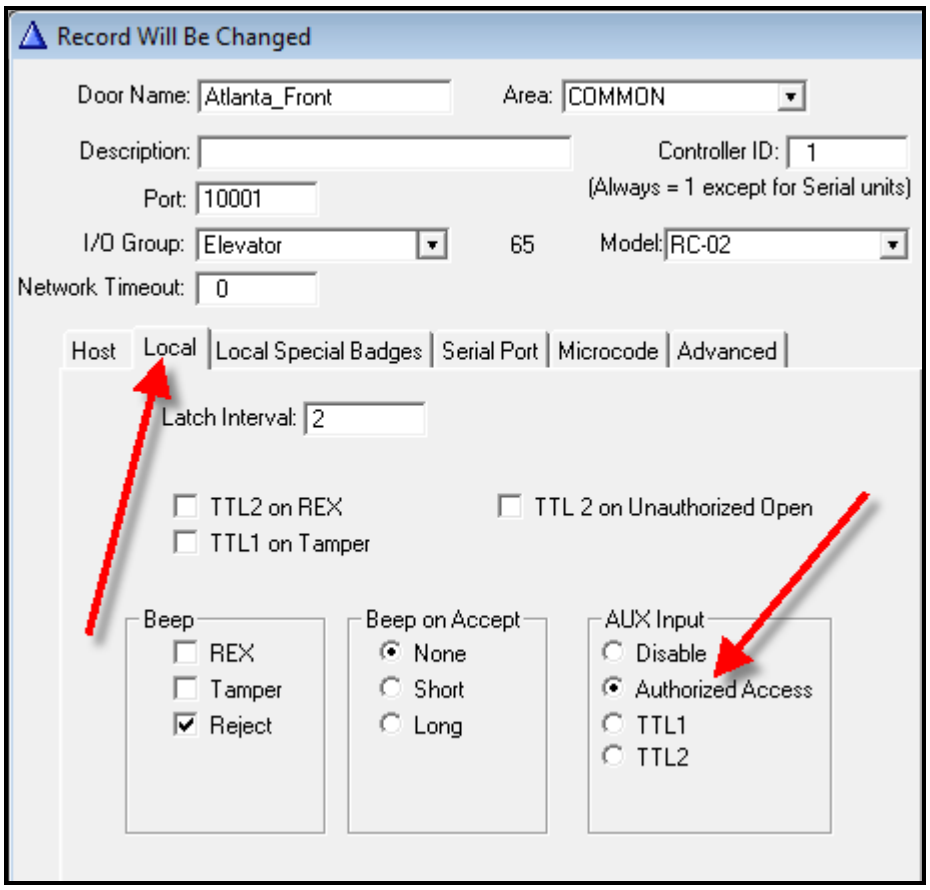
The PowerNet needs to have its AUX input properly configured.
Within the Crystal Administrator application, open the Door's Configuration window.

The AUX input will be configured on two tabs:

On the Host tab, enable the "Use AUX DB" setting



On the Door's Local tab, select the AUX input's "Authorized Access" option.



2.2.2: CRYSTAL SOFTWARE PERMISSION CONFIGURATION

To support the AUX input, while the PowerNet is operating in "Host" mode, a permission will need to be defined. This is a typical permission within Crystal Matrix, and the major steps required to accomplish this are:

- ✓ Assigned the "AUX pseudo-person" to a specific PeopleGroup
- ✓ Define a "Shift" that covers the timeframe that the T24 will be allowed to open the door
- ✓ Define a Permission that includes:
  - o For that Door
  - o For that PeopleGroup
  - o During that Shift

Note:

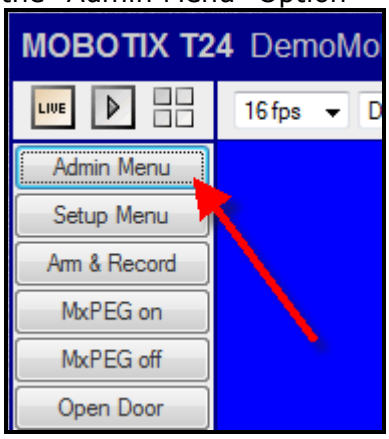
While the PowerNet is operating in Local/Standalone mode, the PowerNet will always accept the T24's request to open the door.

2.2.3: MOBOTIX T24 LATCH INTERVAL CONFIGURATION

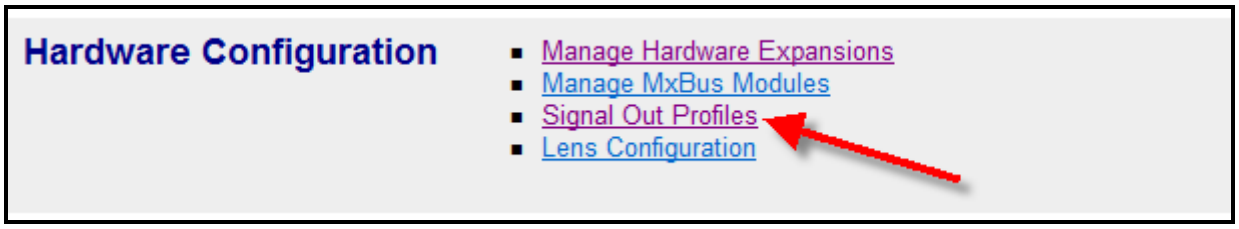
When the PowerNet is operating in Local or Standalone mode, the length of time that the door lock is held open is controlled by the T24.

The length of time that the T24 will hold open the door is configured through the T24's internal web-server.

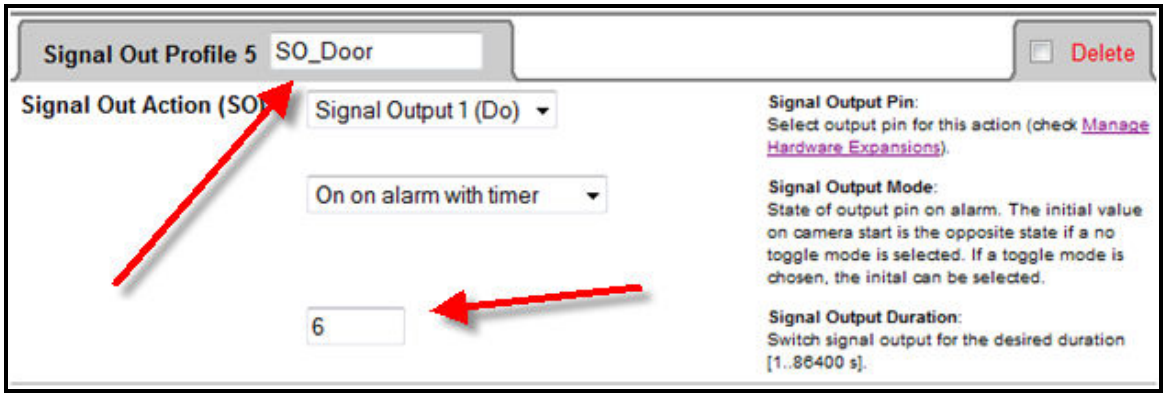
Select the "Admin Menu" Option



Within the "Hardware configuration" section, select the "Signal Out Profile" Option

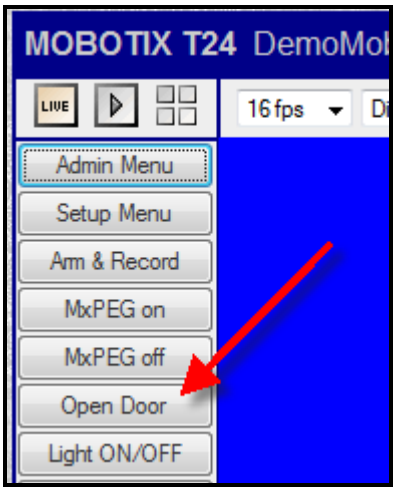


Locate the Signal Out Profile named "SO_Door", and set the Signal Output duration to be the number of seconds that the door should be held unlocked.

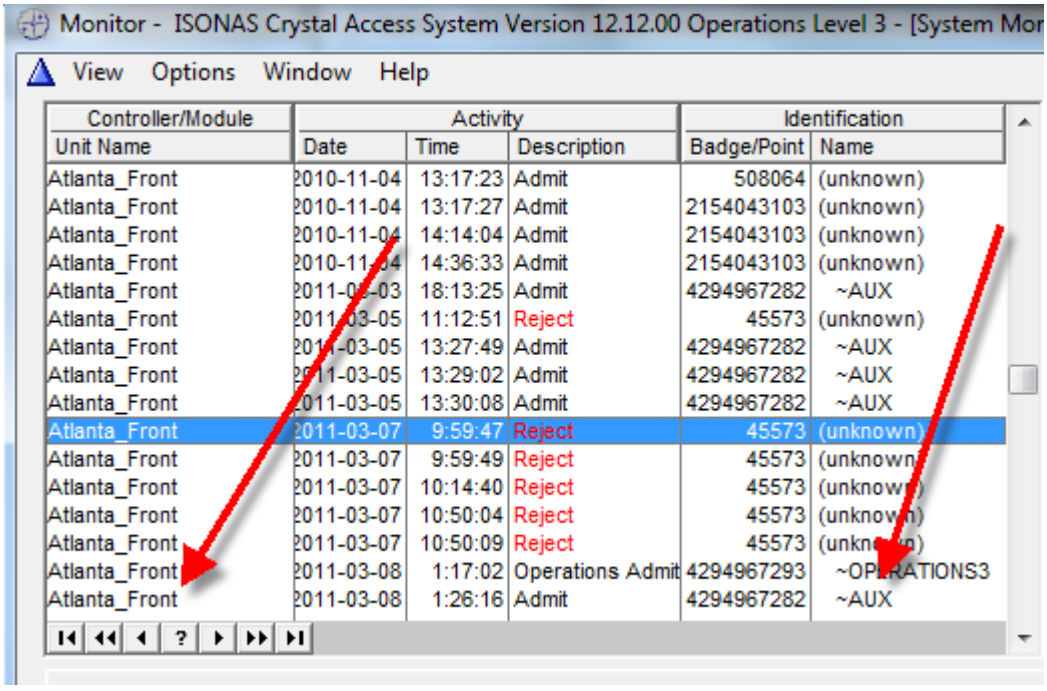

Signal Out Profile 5
SO_Door
Delete
Signal Out Action (SO
Signal Output 1 (Do)
On on alarm with timer
6
Signal Output Pin:
Select output pin for this action (check Manage Hardware Expansions).
Signal Output Mode:
State of output pin on alarm. The initial value on camera start is the opposite state if a no toggle mode is selected. If a toggle mode is chosen, the inital can be selected.
Signal Output Duration:
Switch signal output for the desired duration [1..86400 s].

2.3: TESTING THE OPERATION OF THE SOLUTION

✓ From the T24's Web server, click on the "Open Door" button



✓ On the Crystal Matrix Monitor Application, verify that the activity was logged. The Door should have logged an "Admit" action for the person "Aux".


Monitor - ISONAS Crystal Access System Version 12.12.00 Operations Level 3 - [System Mor
View Options Window Help
Controller/Module
Activity
Identification
Unit Name | Date | Time | Description | Badge/Point | Name
Atlanta_Front 2010-11-04 13:17:23 Admit 508064 (unknown)
Atlanta_Front 2010-11-04 13:17:27 Admit 2154043103 (unknown)
Atlanta_Front 2010-11-04 14:14:04 Admit 2154043103 (unknown)
Atlanta_Front 2010-11-04 14:36:33 Admit 2154043103 (unknown)
Atlanta_Front 2011-03-03 18:13:25 Admit 4294967282 ~AUX
Atlanta_Front 2011-03-05 11:12:51 Reject 45573 (unknown)
Atlanta_Front 2011-03-05 13:27:49 Admit 4294967282 ~AUX
Atlanta_Front 2011-03-05 13:29:02 Admit 4294967282 ~AUX
Atlanta_Front 2011-03-05 13:30:08 Admit 4294967282 ~AUX
Atlanta_Front 2011-03-07 9:59:47 Reject 45573 (unknown)
Atlanta_Front 2011-03-07 9:59:49 Reject 45573 (unknown)
Atlanta_Front 2011-03-07 10:14:40 Reject 45573 (unknown)
Atlanta_Front 2011-03-07 10:50:04 Reject 45573 (unknown)
Atlanta_Front 2011-03-07 10:50:09 Reject 45573 (unknown)
Atlanta_Front 2011-03-08 1:17:02 Operations Admit 4294967293 ~OPERATIONS3
Atlanta_Front 2011-03-08 1:26:16 Admit 4294967282 ~AUX

✓ Physically verify that the door unlocks, when the MOBOTIX T24's Open Door button is clicked.

2.4: SUPPORTING ADDITIONAL MOBOTIX CAMERAS

The MOBOTIX MX-ExtIO unit can allow other MOBOTIX cameras to control the PowerNet's AUX input. This functionality is available with the M12, D12, Q24, M24, and D24 models of MOBOTIX cameras.

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